

NU-01013

AFTER FINAL: EXPEDITED ACTION

01300045aa

Amendment dated 06/16/2005

Reply to office action mailed 04/15/2005

The following is a complete listing of all claims in the application, with an indication of the status of each:

Listing of claims:

1 1. (currently amended) A CDMA (Code Division Multiple Access)
2 transmitter/receiver comprising:
3 SIR (Signal-to-Interference Ratio) calculating means for calculating
4 SIRs of a received signal slot by slot; and
5 command generating means for generating a transmission power
6 control command and a transmission power control-OFF command for
7 ~~interrupting a transmission power control,~~
8 said transmission power control ~~generating~~ command being
9 generated when the SIR decreases or increases from a reference value,
10 a said transmission power control command being a command that
11 causes a station, which is sending the received signal, to lower or raise
12 transmission power so as to restore the SIR toward the reference value,
13 said transmission power control-OFF command for interrupting
14 a transmission power control being generated when the SIR
15 continuously decreases over a preselected number of slots;
16 wherein said transmission power control-OFF command, if generated,
17 is inserted in a radio frame to be sent to the station, otherwise said
18 transmission power control command is inserted in said radio frame.

1 2. (previously presented) The CDMA transmitter/receiver as claimed in
2 claim 1, wherein said command generating means comprises:
3 transmission power control command generating means for generating
4 said transmission power control command by determining whether or not a

NU-01013

AFTER FINAL: EXPEDITED ACTION

01300045aa

Amendment dated 06/16/2005

Reply to office action mailed 04/15/2005

5 difference between the SIR of a current slot and a reference SIR is equal to or
6 greater than zero;
7 command select signal generating means for counting slots over which
8 a difference between the SIR of an immediately preceding slot and the SIR of
9 the current slot is equal to or greater than a preselected threshold assigned to
10 SIRs, and generating a command select signal having a particular status in
11 each of
12 a) a case wherein said difference is smaller than said
13 preselected threshold assigned to SIRs or a number of slots counted is
14 smaller than a preselected threshold assigned to slots and
15 b) a case wherein said difference is equal to or greater than said
16 threshold and said number of slots counted is equal to or greater than
17 said threshold assigned to slots; and
18 a selector for selecting either one of said transmission power control
19 command and said transmission power control-OFF command in accordance
20 with said command select signal.

1 3. (original) The CDMA transmitter/receiver as claimed in claim 2, wherein
2 said transmission power control-OFF command comprises a transmission
3 power control command for lowering the transmission power and a
4 transmission power control command for raising said transmission power that
5 alternate with each other slot by slot.

1 4. (currently amended) The CDMA transmitter/receiver as claimed in claim
2 2, wherein said command select signal generating means comprises:
3 SIR storing means for storing the SIR of the current slot while
4 outputting the SIR of the immediately preceding slot;

NU-01013

AFTER FINAL: EXPEDITED ACTION

01300045aa

Amendment dated 06/16/2005

Reply to office action mailed 04/15/2005

5 subtracting means for subtracting the SIR of the current slot from the
6 SIR of the immediately preceding slot; and
7 counter means for counting the number of slots over which a
8 difference output from said subtracting means is equal to or greater than the
9 preselected threshold assigned to SIRs;
10 wherein said command select signal has a particular status in each of
11 a) a case wherein the ~~different~~difference output from said
12 subtracting means is smaller than the preselected threshold assigned to
13 SIRs or the number of slots counted is smaller than the preselected
14 threshold assigned to slots and
15 b) a case wherein said difference output from said subtracting
16 means is equal to or greater than said preselected SIR threshold and
17 said number of slots counted is equal to or greater than said preselected
18 threshold assigned to slots.

1 5. (original) The CDMA transmitter/receiver as claimed in claim 4, wherein
2 said transmission power control-OFF command comprises a transmission
3 power control command for lowering the transmission power and a
4 transmission power control command for raising said transmission power that
5 alternate with each other slot by slot.

1 6. (previously presented) The CDMA transmitter/receiver as claimed in
2 claim 1, wherein said command generating means comprises:
3 transmission power control command generating means for generating
4 said transmission power control command by determining whether or not a
5 difference between the SIR of a current slot and a reference SIR is equal to or
6 greater than zero;

NU-01013

AFTER FINAL: EXPEDITED ACTION

01300045aa

Amendment dated 06/16/2005

Reply to office action mailed 04/15/2005

7 command select signal generating means for counting slots over which
8 a difference between the SIR of the current slot and a reference SIR is equal to
9 or greater than a preselected threshold assigned to SIRs, and generating a
10 command select signal having a particular status in each of

11 a) a case wherein said difference is smaller than said
12 preselected threshold assigned to SIRs or a number of slots counted is
13 smaller than a preselected threshold assigned to slots and
14 b) a case wherein said difference is equal to or greater than said
15 threshold and said number of slots counted is equal to or greater than
16 said preselected threshold; and
17 a selector for selecting either one of said transmission power control
18 command and said transmission power control-OFF command in accordance
19 with said command select signal.

1 7. (original) The CDMA transmitter/receiver as claimed in claim 6, wherein
2 said transmission power control-OFF command comprises a transmission
3 power control command for lowering the transmission power and a
4 transmission power control command for raising said transmission power that
5 alternate with each other slot by slot.

1 8. (previously presented) The CDMA transmitter/receiver as claimed in
2 claim 6, wherein said command select signal generating means comprises:
3 subtracting means for subtracting the SIR of the current slot from a
4 reference SIR; and
5 counter means for counting slots over which a difference output from
6 said subtracting means is equal to or greater than the preselected SIR
7 threshold;
8 wherein said command select signal has a particular status in each of

NU-01013

AFTER FINAL: EXPEDITED ACTION

01300045aa

Amendment dated 06/16/2005

Reply to office action mailed 04/15/2005

9 a) a case wherein the difference output from said subtracting
10 means is smaller than the preselected threshold assigned to SIRs or the
11 number of slots counted is smaller than the preselected threshold
12 assigned to slots and

13 b) a case wherein said difference output from said subtracting
14 means is equal to or greater than said threshold assigned to SIRs and
15 said number of slots counted is equal to or greater than said preselected
16 threshold assigned to slots.

1 9. (original) The CDMA transmitter/receiver as claimed in claim 8, wherein
2 said transmission power control-OFF command comprises a transmission
3 power control command for lowering the transmission power and a
4 transmission power control command for raising said transmission power that
5 alternate with each other slot by slot.

1 10. (previously presented) The CDMA transmitter/receiver as claimed in
2 claim 1, wherein said command generating means comprises:

3 transmission power control command generating means for generating
4 said transmission power control command by determining whether or not a
5 difference between the SIR of a current slot and a reference SIR is equal to or
6 greater than zero;

7 command select signal generating means for counting slots over which
8 a difference between the SIR of an immediately preceding slot and the SIR of
9 the current slot is equal to or greater than zero, and generating a command
10 select signal having a particular status in each of

11 a) a case wherein said difference is smaller than a preselected
12 threshold assigned to SIRs or a number of slots counted is smaller than
13 a preselected threshold assigned to slots and

NU-01013

AFTER FINAL: EXPEDITED ACTION

01300045aa

Amendment dated 06/16/2005

Reply to office action mailed 04/15/2005

14 b) a case wherein said difference is equal to or greater than zero
15 and said number of slots counted is equal to or greater than said
16 preselected threshold assigned to slots; and
17 a selector for selecting either one of said transmission power control
18 command and said transmission power control-OFF command in accordance
19 with said command select signal.

1 11. (original) The CDMA transmitter/receiver as claimed in claim 10,
2 wherein said transmission power control-OFF command comprises a
3 transmission power control command for lowering the transmission power and
4 a transmission power control command for raising said transmission power
5 that alternate with each other slot by slot.

1 12. (previously presented) The CDMA transmitter/receiver as claimed in
2 claim 11, wherein said command select signal generating means comprising:
3 SIR storing means for storing the SIR of the current slot while
4 outputting the SIR of the immediately preceding slot;
5 subtracting means for subtracting the SIR of the current slot from the
6 SIR of the immediately preceding slot; and
7 counter means for counting the number of slots over which a
8 difference output from said subtracting means is greater than or equal to zero;
9 wherein said command select signal has a particular status in each of

10 a) a case wherein the different output from said subtracting
11 means is smaller than zero or the number of slots counted is smaller
12 than the preselected threshold assigned to slots and
13 b) a case wherein said difference output from said subtracting
14 means is equal to or greater than zero and said number of slots counted
15 is equal to or greater than said preselected threshold assigned to slots.

NU-01013

AFTER FINAL: EXPEDITED ACTION

01300045aa

Amendment dated 06/16/2005

Reply to office action mailed 04/15/2005

1 13. (original) The CDMA transmitter/receiver as claimed in claim 12,
2 wherein said transmission power control-OFF command comprises a
3 transmission power control command for lowering the transmission power and
4 a transmission power control command for raising said transmission power
5 that alternate with each other slot by slot.

1 14. (original) The CDMA transmitter/receiver as claimed in claim 1, wherein
2 said transmission power control-OFF command comprises a transmission
3 power control command for lowering the transmission power and a
4 transmission power control command for raising said transmission power that
5 alternate with each other slot by slot.

1 15. (currently amended) A CDMA transmitter/receiver comprising:
2 a SIR calculator configured to calculate SIRs of a received signal slot
3 by slot; and
4 a command generating circuit configured to generate a transmission
5 power control command and a transmission power control-OFF command for
6 interrupting transmission power control,
7 said transmission power control command being ~~configured to~~
8 ~~generate,~~ generated when the SIR decreases or increases from a
9 reference value, a said transmission power control command being a
10 command that causes a station, which is sending the received signal, to
11 lower or raise transmission power so as to restore the SIR toward the
12 reference value,
13 said transmission power control-OFF command for interrupting
14 a transmission power control being generated when the SIR
15 continuously decreases over a preselected number of slots;

NU-01013

AFTER FINAL: EXPEDITED ACTION

01300045aa

Amendment dated 06/16/2005

Reply to office action mailed 04/15/2005

- 16 wherein said transmission power control-OFF command, if generated,
17 is inserted in a radio frame to be sent to the station, otherwise said
18 transmission power control command is inserted in said radio frame.